



ABEL
ENERGY

Contact

Simon Talbot
Director - Commercial
0447 599 622
s.talbot@abelenergy.com.au

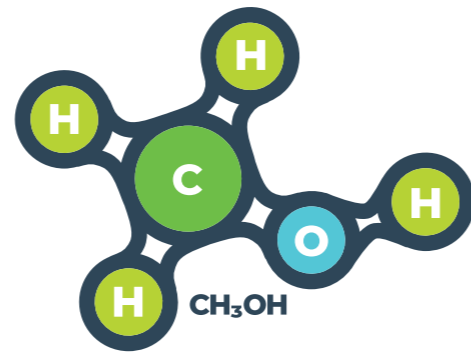
**Renewable
energy
transformed**



What is green methanol?

What is green methanol?

Green methanol (CH₃OH), a key derivative of green hydrogen, is a clear liquid and the simplest alcohol, with the methanol molecule containing four hydrogen atoms and one carbon atom.



How is green methanol made?

Green methanol is produced using renewable feedstocks and power and sustainable carbon sources.



Electrolysis
Splitting water into hydrogen and oxygen.



Gasification
Converts biomass to hydrogen and other products, without combustion.



The proposed Bell Bay Powerfuels will be the largest scale green methanol production facility in the Asia Pacific region, with a projected output of **300,000 tonnes of green methanol per year.**

The operation at Bell Bay Powerfuels aims to provide direct and indirect employment for **300+ workers** for at least 30 years.

Combining green hydrogen from water electrolysis using renewable power with synthesis gas from biomass gasification. The hydrogen and synthesis gases are passed into a reactor with a catalyst, triggering a reaction resulting in the production of liquid methanol.

The operation has virtually **zero GHG emissions**, water vapour emissions, or effluent discharge. The production process is odourless and the product is biodegradable and easy to handle as a clear liquid.

Australia currently imports over 100,000 tonnes of methanol per annum.

The National Hydrogen Strategy has been pivotal in propelling Australia's ambitions to source alternatives to the reliance on traditional fossil fuels.



bellbaypowerfuels.com.au



abelenergy.com.au

Who uses green methanol?

Green methanol has two main applications as:

1. sustainable chemical feedstock
2. renewable liquid fuel



Global Shipping and Maritime Industries are aiming for a **80% reduction of emissions by 2040.**



As a **carbon neutral liquid fuel**, green methanol can be used as a diesel and gasoline replacement, accelerating the decarbonisation of existing fleet stock.



Medical Equipment

- Gloves
- Masks
- Medical gowns
- Hood cap
- Apron
- Pharmaceutical drugs
- Disinfectants

Automotive Manufacturing

- Clean Fuels
- Paints
- Polyester Carpet & Fabric
- Light Lens
- Tire Core Adhesives
- Body Panels
- MDF/MDI Door Panels
- Safety Glass Laminates
- Polyurethane Dashboard Foam
- Acetyl Thermoplastics: Gears, Pumps, Mouldings, Compounds, Distributor Caps, Fuses

Daily Objects

- Mattress Foam
- Polyester Carpet
- PET Plastic Bottles
- Decorative Laminates
- Clothing
- Fibreglass Insulation Binder
- Silicone Sealant
- Solvents
- Disinfectants



Renewable Energy Transformed



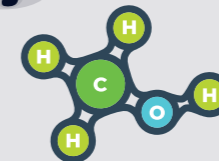
With customers like **Maersk** who have 24 large container ships (16,000 TEU) ordered with methanol dual fuel capability, delivering Maersk a 70% emissions reduction by 2030.

This alone will avoid over 540,000 tonnes per year of fossil fuel derived CO₂ emissions

Australia is ever reliant on the maritime industry with **80% of goods transported by sea.**



Green methanol as a chemical feedstock is in fact carbon negative as carbon is captured from the atmosphere and stored in the chemical product produced.



Methanol derivatives are key in production of our **everyday**



As part of a Green Hydrogen Energy Hub at Bell Bay, will provide local renewable fuel uptake opportunities, ie ports, rail, ferries, trucks etc.

Tasmania is poised to be the sustainable fuel gateway to Antarctica.

Demand for green methanol derivatives is set to grow to **400 million tonnes by 2050.**